

February 17, 1988

Allen Tilton
Box 4694
Springfield, MO 65808

Dear Mr. Tilton:

On February 16, 1988, personnel from the City's Public Works Department, in response to your complaint of sewer odor in the building at 2354 N. National, conducted a smoke test in the sewer main that serves this property. Smoke entered the building around the base of the toilet, indicating that the seal at the base of the fixture apparently isn't functioning.

The fact that gases are entering your residence from the sewer indicates that potentially serious health and safety hazards exist on your premises. Some of the most common dangerous gases that exist in the sewer and their hazards (from the Manual of Instruction for Sewage Treatment Plant Operators) are:

Carbon Monoxide - Colorless, odorless, non-irritating. Flammable, explosive. Hemoglobin of the blood has a strong affinity for the gas, causing oxygen starvation in the tissues.

Hydrogen - Colorless, odorless, tasteless, non-poisonous. Flammable, explosive. Propagates flame rapidly. Acts mechanically to deprive the tissues of oxygen. A simple asphyxiant.

Methane - Colorless, odorless, non-poisonous. Flammable, explosive.

Hydrogen Sulfide - "Rotten egg" odor in small concentrations. Colorless, poisonous. Flammable, explosive.

Carbon Dioxide - Colorless, odorless, non-flammable. Not generally present in dangerous amounts unless there is a deficiency of oxygen.

There are, of course, many other substances that can be present in the sanitary sewer.

2354 N. NATIONAL

Allen Tilton

Page 2

February 17, 1988

However, plumbing with all proper appurtenants and in good repair is designed to prevent sewer gas from venting back into the building. The plumbing beneath the toilet has been identified as the source of the sewer odors in the building. Steps should be taken to correct this problem.

If we can be of any further assistance, or if you have any questions, please don't hesitate to call.

Yours truly,



Karen Chandler
Water Pollution Control Inspector II
Surveillance & Enforcement

KC:js

ccs: Robert R. Schaefer, P.E., Superintendent of Sanitary Services
Henry Cole, P.E., Sanitary Engineer
J.R. Lyman, Sewer Surveillance & Billing Supervisor
Melvin A. Gere, Action Cycle Parts, Ltd.
File

Memo to File

On February 16, 1988, Gene Pabst and I smoke-tested the sewer main that serves Action Cycle Parts, Ltd. at 2354 N National. Employees of Action Cycle Parts have experienced a sewer odor in the building on several occasions. The building has one restroom. There are two floor drains and a sink in the back store room. Gene set up the smoking machine at MH 8 (we map H-12) and I went inside the building to watch for smoke. Gene set off smoke bombs three different times. The only place I saw smoke coming into the building was around the base of the toilet. I wrote a letter about the smoke test to the owner of the building, Allen Tilton.

Karen Chandler

Karen Chandler
Water Pollution Control Inspector II
Surveillance & Enforcement

cc: Mr. Bob Turner, P. E., Assistant Director of Public Works

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